CLAIMS

1. Catalyst carrier 14 for exhaust gas purification system 16, comprising bands of stainless steel-made at least one corrugated sheet 1 and at least one plain sheet 2 which hold stainless steel-made bonding assistants 15 therebetween,

wherein said bonding assistants 15 have a width narrower than those of sheets 1 and 2,

wherein said sheets 1 and 2 are alternated and are wound to form a roll having a honeycomb structure comprising a number of cell spaces 4,

wherein catalyst materials 21 are adhered to sheets 1 and 2,

wherein said sheets 1 and 2 are diffusion bonded to each other via bonding assistants 15,

wherein said bonding assistants 15 are positioned radially inside from projections 6, which are formed at side ends of corrugated sheet 1 during passing sheet 1 through a pair of toothed gears 5, and

wherein said bonding assistants 15 have thickness T greater than height H of projections 6.

2. A catalyst carrier according to claim 1, comprising one corrugated sheet 1 and one plain sheet 2, each being made of stainless steel containing aluminum, wherein said sheets 1 and 2 have substantially same length and width L, and the length of assistants 15 is substantially same as that of sheets 1 and 2.

3. A catalyst carrier according to claim 1, wherein assistants 15 are positioned 5mm or more inside the side ends of sheets 1 and 2, and have thickness

T of from 20 to 200 μ m.

4. A catalyst carrier according to claim 3, wherein assistants 15 are used in a pair or pairs via plain sheet 2, and wherein width W of one assistant is 0.5 to 5 mm, and ratio of the total width of all assistants to width L of sheets 1 and 2 is 0.3 to 20%.

5. A catalyst carrier according to claim 4, wherein each of the pair or pairs of assistants 15 face to the other via plain sheet 2 to increase the contact pressure between sheets 1 and 2.

6. A catalyst carrier according to claim 4, wherein each of the pair or pairs of assistants 15 is shifted to the other via plain sheet 2 to improve thermal stress easing properties.

7. A method for producing catalyst carrier 14 for exhaust gas purification system 16, comprising,

winding bands of stainless steel-made at least one corrugated sheet 1 and at least one plain sheet 2 which hold stainless steel-made bonding assistants 15 therebetween, to form a roll, wherein said bonding assistants 15 have a width narrower than that of sheets 1 and 2, and said sheets 1,2 are alternated,

wherein said bonding assistants 15 are positioned radially inside from projections 6, which are formed at side ends of corrugated sheet 1 during passing sheet 1 through a pair of toothed gears 5, and

heating the roll to diffusion bond the sheets 1 and 2 to each other via bonding assistants 15, to produce the roll having a honeycomb structure comprising

a number of cell spaces 4, and

adhering a catalyst material 21 to sheets 1 and 2 and bonding assistants 15.